

What is claimed is:

1. A baking system including a plate for receiving a wafer to be baked, a heater for heating the plate, and a cooling apparatus for cooling the plate, the cooling apparatus comprising:

a cooling element for cooling the plate using vaporization of a coolant therein, the cooling element arranged in proximity to the plate with the heater disposed therebetween;

a coolant storage tank for supplying the coolant to the cooling element when the plate is cooled and for storing the coolant when the plate is heated; and

a thermostatic element for maintaining a temperature of the coolant supplied into the cooling element constant when the plate is cooled.

2. The baking system as claimed in claim 1, wherein the coolant storage tank comprises a coolant flowing element for flowing the coolant into the cooling element when the plate is cooled.

3. The baking system as claimed in claim 1, wherein the thermostatic element comprises:

a cooling water storage tank for circulating cooling water through the cooling element; and

a cooling water supply pipeline, which is a path of the cooling water, that extends into the cooling element and provides flow communication between the cooling element and the cooling water storage tank.

4. The baking system as claimed in claim 3, wherein the cooling water supply pipeline has a valve between the cooling water storage tank and the cooling element.

5. The baking system as claimed in claim 1, further comprising a coolant supply pipeline for providing flow communication between the coolant storage tank and the cooling element.

6. The baking system as claimed in claim 5, wherein the coolant supply pipeline has a valve between the coolant storage tank and the cooling element.

7. The baking system as claimed in claim 1, wherein the cooling element is a heatpipe having a ceiling portion and internal side portions.

8. The baking system as claimed in claim 2, wherein the cooling element is a heatpipe having a ceiling portion and internal side portions.

9. The baking system as claimed in claim 3, wherein the cooling element is a heatpipe having a ceiling portion and internal side portions.

10. The baking system as claimed in claim 2, wherein the coolant flowing element is a heater disposed adjacent to the coolant storage tank.

11. The baking system as claimed in claim 2, wherein the coolant flowing element is a heater integrated with the coolant storage tank in a single body.

12. The baking system as claimed in claim 7, wherein the heatpipe comprises a wick on the ceiling portion and internal side portions of the heatpipe.

13. The baking system as claimed in claim 8, wherein the heatpipe comprises a wick on the ceiling portion and internal side portions of the heatpipe.

14. The baking system as claimed in claim 9, wherein the heatpipe comprises a wick on the ceiling portion and internal side portions of the heatpipe.

15. The baking system as claimed in claim 7, further comprising:  
a wick plate having a plurality of planar wicks installed on the ceiling portion of the heatpipe; and  
a wick formed on the internal side portions of the heatpipe to guide the coolant to flow toward the wick plate.

16. The baking system as claimed in claim 8, further comprising:  
a wick plate having a plurality of planar wicks installed on the ceiling portion of the heatpipe; and  
a wick formed on the internal side portions of the heatpipe to guide the coolant to flow toward the wick plate.

17. The baking system as claimed in claim 9, further comprising:  
a wick plate having a plurality of planar wicks installed on the ceiling portion of the heatpipe; and  
a wick formed on the internal side portions of the heatpipe to guide the coolant to flow toward the wick plate.

18. The baking system as claimed in claim 7, further comprising a wick plate installed on the ceiling portion and internal side portions of the heatpipe.

19. The baking system as claimed in claim 8, further comprising a wick plate installed on the ceiling portion and internal side portions of the heatpipe.

20. The baking system as claimed in claim 9, further comprising a wick plate installed on the ceiling portion and internal side portions of the heatpipe.

21. The baking system as claimed in claim 1, wherein the coolant is selected from the group consisting of acetone, methanol, water, and distilled water.